

REMARKS

Claims 1-30 are pending. Claims 1-19, 22, 25, and 28 have been amended. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the August 6, 2004 Office Action, the Examiner allowed claims 20-21, 23-24, 26-27, and 29-30. The Examiner rejected claims 4, 8, 9, 13, 17, and 18 under 35 U.S.C. §112, second paragraph, for being indefinite. The Examiner indicated that claims 4, 8, 9, 13, 17, and 18 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. §112. The Applicant has amended claims 4, 8, 9, 13, 17, and 18 to overcome this rejection. The Examiner rejected claims 1, 19, and 22 under 35 U.S.C. §102(b) as being anticipated by Berkhout et al., U.S. Patent No. 4,736,163 (hereinafter the Berkhout reference). Applicant notes that the Examiner stated that claim 22 "inherits all limitations of claim 1. Applicant respectfully points out that this is not the case and will address claim 22 accordingly.

The Examiner rejected claim 5 under 35 U.S.C. §103(a) as obvious over the Berkhout reference. The Examiner rejected claims 10 and 14 under 35 U.S.C. §103(a) as obvious over Rousos et al., U.S. Patent No. 3,947,769 (hereinafter the Rousos reference) in view of the Berkhout reference. Applicant notes that the rejection of claim 14 must be a typographical error because claim 14 recites a minimum detector and a peak detector. Applicant assumes that claim 14 was intended to be rejected on line item 14 discussed below. The Examiner rejected claim 10 under 35 U.S.C. §103(a) as obvious over Rousos et al., U.S. Patent No. 3,947,769 (hereinafter the Rousos reference) in view of the Berkhout reference. Applicant notes that this rejection must be a typographical error because claim 10 does not recite a minimum detector as referred to by the Examiner in the office

action. Applicant assumes the Examiner meant to reject claim 14. The Examiner rejected claims 25 and 28 under 35 U.S.C. §103(a) as obvious over the Berkhoult reference in combination with Rousos et al., in further view of Labelle U.S. Patent No. 6,026,773 (hereinafter the Labelle reference). Applicant notes that the rejection of claim 28 must be a typographical error because claim 28 does not inherit the limitations of claim 25, claim 28 recites determining minimum and maximum values of binary signals. These rejections are respectfully traversed.

The Examiner objected to claims 2-3, 6-7, 11-12, and 15-16 as being dependent upon rejected base claims, but indicated that such claims would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. By this amendment, the Applicant has rewritten in independent form claims 2-3, 6-7, 11-12, and 15-16 in accordance with the Examiner's remarks.

The Applicant believes rewritten independent claims 2-3, 6-7, 11-12, and 15-16 are in condition for allowance.

Independent claim 1, as amended, recites:

An adaptive slicer threshold generation system, comprising:
a first moving average filter to determine a first average value of a first binary signal **comprising binary values of one**;
a second moving average filter to determine a second average value of a second binary signal **comprising only binary values of zero, wherein the value of the second binary signal includes both positive and negative values**; and
a combiner to combine the first average value of the first binary signal and the second average value of the second binary signal to generate a combined output.

The Examiner rejected claims 1, 19, 22 under 35 U.S.C. §102(b) as being anticipated by the Berkhout reference. The Berkhout reference does not disclose, teach, or suggest the system specified in independent claim 1, as amended. Unlike the system specified in independent claim 1, as amended, the Berkhout reference does not show “a first moving average filter to determine a first average value of a first binary signal **comprising binary values of one**; a second moving average filter to determine a second average value of a second binary signal **comprising only binary values of zero, wherein the second binary signal includes both positive and negative values**”.

Applicant respectfully submits that the Berkhout reference does not teach the invention as specified in independent claim 1, as amended. The Berkhout reference states “FIG. 3 shows another embodiment of the device 4 of FIG. 1. The device 4 in this case comprises two parallel extending signal paths 25 and 25', each signal path 25 and 25', respectively, comprising a **peak detector** 10 and 10', respectively, a device 11 and 11', respectively, for determining a running average value, a delay unit 12 and 12'--respectively, and a comparator 15 and 15', respectively. The peak detector 10 in one channel 25 is adapted to detect peaks having a positive polarity, while the peak detector 10' in the other channel 25' is adapted to detect peaks having a negative polarity. The peak detector 10' may be composed, for example, in the same manner as the peak detector 10. In this case, an inverting element should precede the peak detector in the signal path 25' and can if necessary be incorporated in the peak detector 10'. The device further comprises a combination circuit 26 having a first and a second input 27 and 27', respectively, coupled to the output 16 and 16', respectively, of the comparator 15 and 15', respectively, and an output coupled to the output 5 of the device.” (Column 7, lines 3-23). The Berkhout

reference teaches that one of the peak detectors (10) only detects peaks having a positive polarity while **the other peak detector (10') only detects peaks having a negative polarity**. The average value detectors 11, 11' only determine the running average values of positive and **negative polarity signals**, respectively. Therefore, Berkout does not show "a second moving average filter to determine a second average value of a second binary signal **comprising only binary values of zero, wherein the second binary signal includes both positive and negative values**".

Accordingly, Applicant respectfully submits that independent claim 1, as amended distinguishes over the above-cited reference.

Independent claims 10, 19, and 25 recites limitations similar to independent claim 1. Specifically, independent claim 10, as amended, recites "a second moving average filter to determine a second average value of a second binary signal comprising only binary values of zero, wherein the second binary signal includes both positive and negative values". Independent claim 19 and claim 25, as amended, recite "**wherein the second received binary signal comprises only binary values of zero and includes both positive and negative values**".

Accordingly, Applicant respectfully submits that independent claims 10, 19, and 25 distinguish over the above-cited reference for the same reasons as set forth above with respect to independent claim 1, as amended.

Independent claim 5, as amended, recites:

An adaptive slicer threshold generation system, comprising:

 a minimum detector to determine a minimum value of a binary one;
 a peak detector to determine a maximum value of a binary zero,

wherein the binary zero includes both positive and negative values; and

 a combiner to combine the minimum value of the binary one and the

maximum value of the binary zero to generate a combined output.

The Berkhout reference does not disclose, teach, or suggest the system specified in independent claim 5, as amended. Unlike the system specified in independent claim 5, as amended, the Berkhout reference does not show “a minimum detector to determine a minimum value of a binary one; a peak detector to determine a maximum value of a binary zero, **wherein the binary zero includes both positive and negative values**”.

The Berkhout reference teaches that one of the peak detectors (10) only detects **peaks having a positive polarity** while the other peak detector (10') only detects **peaks having a negative polarity**. The average value detectors 11, 11' only determine the running average values of positive and negative polarity signals respectively. Therefore, Berkhout does not show “a minimum detector to determine a minimum value of a binary one; a peak detector to determine a maximum value of a binary zero, **wherein the binary zero includes both positive and negative values**”.

Accordingly, Applicant respectfully submits that independent claim 5, as amended, distinguishes over the above-cited reference.

Independent claims 14, 22, and 28 recite limitations similar to independent claim 5. Specifically, independent claim 14, recites “a minimum detector to determine a minimum value of a binary one; a peak detector to determine a maximum value of a binary zero, **wherein the binary zero takes on both positive and negative values**”. Independent claim 22, recites “determining a maximum value of a binary zero by comparing a second received binary signal with a second delayed output signal, **wherein the second received binary signal comprises only binary values of zero and includes both positive and negative values**”.

Independent claim 28, recites "determine a maximum value of a binary zero by comparing a second received binary signal with a second delayed output signal, **wherein the second received binary signal comprises only binary values of zero and includes both positive and negative values**".

Accordingly, Applicant respectfully submits that independent claims 14, 22, and 28 distinguish over the above-cited reference for the same reasons as set forth above with respect to independent claim 5.

Applicant believes that the foregoing amendment and remarks place the application in condition for allowance, and a favorable action is respectfully requested.

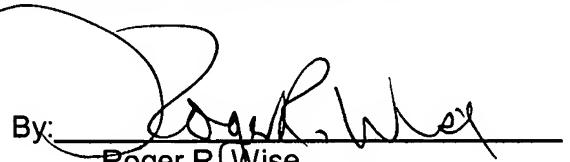
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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